WHAT IS CLAIMED IS:

1. A complex magnetic material, comprised by mixing ferrous crystalline alloy magnetic powder with ferrous amorphous alloy magnetic powder, thereby obtaining a complex magnetic powder, and additionally mixing therein a connecting agent of 1 wt % to 10 wt % of the mixed magnetic powder.

2. The complex magnetic material according to Claim 1, wherein the matching ratios of the crystalline alloy magnetic powder, and the amorphous alloy magnetic powder, in the mixed magnetic powder are between 60 wt % to 90 wt %, and 40 wt % to 10 wt %, respectively.

3. The complex magnetic material according to Claim 1, the composition of the crystalline alloy magnetic powder comprising a component X of 3 wt % to 12 wt % and the remainder being iron, the composition of the amorphous alloy magnetic powder comprising a component Y of 6 wt % to 20 wt % and the remainder being iron, the component X comprising at least one of Si, Cr, Ni, Nb, Ca, Ti, and Mg, and the component Y comprising at least one of Si, Cr, Ni, Co, Mo, B, and C.

4. The complex magnetic material according to Claim 1, the average particle diameters of the crystalline alloy magnetic powder and the amorphous alloy magnetic powder being between 1 μm and 50μm.

5. A core obtained by pressure-molding the complex magnetic material according to Claim 1.

6. A magnetic element comprising at least one winding coil, which is buried in the core according to Claim 5.

7. A magnetic element comprising at least one winding flat plate-like conductor, which is buried in the core according to Claim 5.